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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/537,849	03/29/2000	Dan Martin Scott	09090.0003-00000.	6958
7590	02/07/2005			EXAMINER
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER 1300 I STREET, N.W. WASHINGTON, DC 20005-3315			AMINI, JAVID A	
			ART UNIT	PAPER NUMBER
			2672	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/537,849	SCOTT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Javid A Amini	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 09 September 2004.
- 2a) This action is **FINAL**.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

***Response to Arguments***

Applicant's arguments filed September 09, 2004 have been fully considered but they are not persuasive.

Applicant on page 7 lines 7-15 discloses that Examiner must demonstrate the presence of each and every element of the claim in issue and Applicant refers Examiner to see MPEP 2131 [R-1] Anticipation — Application of 35 U.S.C. 102(a), (b), and (e): "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Applicant on page 7 lines 16-22 argues the Examiner has not met this burden. Also on next page 8 lines 4-9 argues the Examiner alleges that the reference Tamano in figs. 3-5 illustrates the elements of claim 1.

Examiner's reply:

**Examiner's observation of claim 1's elements:**

Claim 1, line 1: a method for georeferencing a raster map image, comprising:

**Observation:** Tamano in fig. 1 illustrates a residence map that is one example of the first image information 1. And Tamano in col. 4 lines 6-50 teaches clearly a method of two or more maps. Examiner's comment: Applicant does not specify, the georeferencing map is either raster or vector map. The georeferencing a raster map covers broad limitations in different environment.

Claim1, lines 3-5: displaying a raster map and a georeferenced map; wherein the raster map and the georeferenced map are separate maps; marking a first point on the raster map;

**Observation:** Tamano in fig. 3 illustrates first and second images also selecting a boundary indicated by X1' and Y1'. Tamano in col. 8 lines 34-53 teaches clearly the elements in this part of the claim. Tamano discloses that is possible to simultaneously choose a part in the first image information 1 (raster map 1) and a part in the second image information 2 (raster map 2) so that these parts can be linked to each other.

Claim 1, lines 5-17:

identifying image coordinates associated with the annotated point on the raster map; marking a first point on the georeferenced map; identifying geographic coordinates associated with the first point on the georeferenced map that correspond to the first point on the raster map; marking a second point on the raster map; identifying image coordinates associated with the second point on the raster map; marking a second point on the georeferenced map; identifying geographic coordinates associated with the second point on the georeferenced map; determining a mathematical relationship between the image coordinates.

**Observation:** Tamano in fig. 3 illustrates first and second images also converting the boundary of X1' and Y1' into second image X2" and Y2'. Tamano in col. 8 lines 34-53 teaches clearly the elements in this part of the claim. Tamano discloses that is possible to simultaneously choose a part in the first image information 1 and a part in the second image information 2 so that these parts can be linked to each other. Applicant need to

explicitly specify the mathematical relationship, otherwise the boundaries of X1' and Y1' into second image X2' and Y2' are considered as a mathematical relationship.

Applicant on pages 8-9 describes clearly a summary of the reference's invention.

Applicant on page 9 lines 8-16 argues that Tamano does not disclose the two maps are separate maps. Examiner's reply: Tamano in figs. 3-5 illustrates clearly two separate images, which identified by image number or image coordinates associated with each other. The two different locations (X1, Y1'; X2', Y2') can be considered as geographic coordinates since Tamano in col. 4 lines 1-5, teaches the maps geographically represent locations. Applicant needs to amend the language toward the claim invention.

Applicant on page 9 lines 17-22 describes clearly the relationships between objects of the two maps in Tamano.

Applicant on page 10 lines 1-7 argues about table 30 in fig. 3. On the same page argues that the Examiner is taking Official Notice regarding the teachings of Tamano. Examiner's reply: Examiner is not taking an official notice. The claim limitations associated with the broad language are rejected under the teaching of Tamano. The reference Tamano has been mailed to Applicant with the previous office action.

Examiner encourages Applicant to schedule an interview to resolve the issues.

Examiner's comment about figs. 3-4: The information in table 30 is inherent and is corresponding to the items 40 and 41 in fig. 4.

Applicant on page 11 lines 1-8 argues unknown examiner's official notice.

Examiner reply: there is no an official notice.

Applicant on page 11 lines 11-23 argues similar as previous pages.

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Applicant on page 12 lines 4-12 argues nothing in Tamano discloses “using the mathematical relationship to determine the geographic coordinates of at least one feature on the raster map,.”

Examiner’s reply: This broad feature is still inherent; because in fig. 4 the two points 40 and 41 of the two different maps (1 and 2) correspondence between the first and second images.

Applicant on page 12 line 16 argues about unsupported allegation regarding “a general linear function”.

Examiner’s suggestion: Applicant should provide the Applicant’s definition for “a general linear function”. Examiner is still and will be considered “a general linear function” as an inherent subject matter.

Applicant on page 13-14 argues about claims 5 and 13.

Examiner’s reply: The only parameters, which are not covered by the reference Tamano, are as follows: plurality longitude coordinates and a plurality of latitude coordinates. The reference DeLorme’s invention relates to a new system for correlation and coordination of spatially related data between digital electronic media such as transitory computer displays or other computer outputs. The geographically related data are correlated and coordinated internally by a computer according to the DeLorme’s invention with reference to a common geographical coordinate system such as the standard latitude/longitude location coordinate system. Tamano in col. 1 lines 57-67 clearly discloses different uses of a plurality of kinds of maps, however Tamano’s invention covers two kind of maps see fig. 4, and these maps are used for a resident map. This concept can be used for the roads or railway tracks, facilities or buildings such as railway stations, airports and ports, and topography such as mountains, rivers, lakes, marshes or seas. Large-scale maps (that is enlarged) further represent smaller objects such as: telegraph poles,

signposts, signals, roadside trees and the like. Maps for specific uses also describe underground-buried facilities, which are objects such as water pipes, gas pipes or sewers see col. 4, lines 6-19. A person skill in the art would have known that two numbers--its latitude and its longitude, describe any location on Earth. Tamano discloses maps of different locations see above paragraph. But Tamano does not explicitly specify the use of a plurality longitude coordinates and a plurality of latitude coordinates, therefore Examiner used the second reference DeLorme to cover the mentioned coordinates by adding the database (it can be a CD, Disk, Tape or a hard Drive) of loc/objects into Tamano's fig. 2 for example under item 4 or by using a bi-directional/unidirectional links under item 6 to the DeLorme's information that can be stored in a separate computer in a different area.

Examiner's suggestion: Applicant should be amending the claim's language to specify explicitly toward the invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-12, 14-20 rejected under 35 U.S.C. 102(e) as being anticipated by Tamano et al. (herein after referred as a Tamano).

1. As per claim 1, “a method for georeferencing a raster map image, comprising: displaying a raster map and a georeferenced map; wherein the raster map and the georeferenced map are separate maps marking a first point on the raster map; identifying image coordinates associated with the annotated point on the raster map; marking a first point on the georeferenced map; identifying geographic coordinates associated with the first point on the georeferenced map that correspond to the first point on the raster map; marking a second point on the raster map; identifying image coordinates associated with the second point on the raster map; marking a second point on the georeferenced map; and identifying geographic coordinates associated with the second point on the georeferenced map; determining a mathematical relationship between the image coordinates.” Tamano in figs. 3-5 illustrates the limitation of the claim language. Tamano in col. 2, lines 40-66 discloses that Image information linked with attribute information is hereinafter called first image (raster map) information, and image information which approximately positionally corresponds to the first image information is called second image (georeferenced map) information and is not linked to the attribute information. Specifically, an object contained in the second image information is used as a key, and the attribute information linked with the first image information is retrieved by inputting a correspondence between the second image information and the first image information via the key, i.e. by selecting an object in the second image information. Tamano in col. 8 lines 34-54 and also in figs. 10 and 11 illustrates it is possible to simultaneously choose a part in the first image information 1 and a part in the second image information 2 so that these parts can be linked to each other, an efficient retrieval is realized. Figs. 11(a) through 11(e) corresponds to figs. 10(a) through 10(e), respectively.

2. As per claim 2, “the method of claim 1, further comprising: using the mathematical relationship to determine the geographic coordinates of at least one feature on the raster map”, the step is inherent because Tamano in figs. 3-5 illustrates the step.
3. As per claim 3, “the method of claim 1, further comprising: storing the mathematical relationship with the raster map”, Tamano in fig. 6 illustrates the step.
4. As per claim 4, “the method of claim 1, further comprising: manipulating the raster map to display a location on the raster map; and updating the display of the georeferenced map to display a location identical to the location displayed on the raster map”, See rejection of claim 1.
5. As per claim 6, “the raster map and the georeferenced map are displayed on the same computer display”, Tamano in figs. 1 and 2 illustrates the step.
6. As per claim 7, “the corresponding points are marked by a user after visually determining geographically corresponding points”, Tamano in fig. 5 points 40 and 41 and also see in fig. 8 step 2130.
7. As per claim 8, “the method of claim 1, wherein the mathematical relationship is represented by a set of general linear functions”, Tamano invention is involved a two dimensional coordinates and also having a response (output) that is directly proportional to the input. These are considered as general linear function.
8. As per claim 9, “an apparatus for georeferencing a raster map image, comprising: means for displaying a raster map and a georeferenced map; wherein the raster map and the georeferenced map are separate maps; mean for marking a first point on the raster map; mean for identifying image coordinates associated with the first point on the raster map; mean for marking a first point on the georeferenced map; mean for identifying geographic coordinates associated

with the annotated point on the georeferenced map that correspond to the first point on the raster map; mean for marking a second point on the raster map; means for identifying image coordinates associated with the second point on the raster map; means for marking a second point on the georeferenced map; and means for identifying geographic coordinates associated with the second point on the georeferenced map; mean for determining a mathematical relationship between the image coordinates". See rejection of claim 1.

9. As per claim 10, "the apparatus of claim 9, further comprising: means for using the mathematical relationship to determine the geographic coordinates of at least one feature on the raster map", See rejection of claim 2.

10. As per claim 11, "the system of claim 9, further comprising: means for storing the mathematical relationship with the raster map", see rejection of claim 3.

11. As per claim 12, "the apparatus of claim 9, further comprising: means for manipulating, the raster map to display a location on the raster map; and means for updating the display of the georeferenced map to display a location identical to the location displayed on the raster map", see rejection of claim 4.

12. As per claim 14, "the apparatus of claim 9, wherein the raster map and the georeferenced map are displayed on the same computer display", see rejection of claim 6.

13. As per claim 15, "the apparatus of claim 9, wherein the corresponding points are marked by a user after visually determining geographically corresponding points", see rejection of claim 7.

14. As per claim 16, "the apparatus of claim 9, wherein the mathematical relationship is represented by a set of general linear functions", see rejection of claim 8.

15. Claim 17, “The method of claim 1 further comprising identifying image coordinates associated with at least one point on the raster map; identifying geographic coordinates of points on the georeferenced map that correspond to the point identified on the raster map; and revising the mathematical relationship”, Tamano in figs. 3-5 illustrates the steps.

16. Claim 18, “The method of claim 17, wherein revising further comprises disregarding any points previously identified that are substantially inconsistent with the mathematical relationship”, See rejection of claim 17.

17. Claim 19, “The apparatus of claim 9 further comprising: means for identifying image coordinates associated with at least one point on the raster map; means for identifying geographic coordinates of points on the georeferenced map that correspond to the point identified on the raster map; and means for revising the mathematical relationship”, See rejection of claim 17.

18. Claim 20, “the apparatus of claim 19, wherein the means for revising further comprising means for disregarding any points previously identified that are substantially inconsistent with the mathematical relationship”, see rejection of claim 17.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Tamano, and further in view of Delorme et al (hereinafter referred as a Delorme U.S. patent number 5,848,373).

19. As per claim 5, "the geographic coordinates are latitude and longitude", Tamano does not explicitly specify the latitude and longitude but, Delorme discloses in (col. 2, lines 25-35) The CAMLS system provides "intelligent" printed maps by direct computer output of computed mapping and travel location data on grid quadrangles for correlation with mapped surface features on the corresponding printed maps. This can be accomplished by human senses, e.g. visually and intuitively between human readable forms of the map without the necessity of mentally or quantitatively determining latitude and longitude and without requiring any mathematical calculations by the user. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Delorme into Tamano in order to incorporate the GPS technology (the geographic coordinates) that provides an improvement over a map information that increases the efficiency of linking objects displayed on an image map to descriptive data.

20. As per claim 13, "the apparatus of claim 9, wherein the geographic coordinates are latitude and longitude", See rejection of claim 5.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner  
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